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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/690,794

10/22/2003

James Scott Vartuli

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06/07/2005

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EXAMINER

KOSLOW, CAROL M

ART UNIT

PAPER NUMBER

1755

DATE MAILED: 06/07/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/690,794

Applicant(s)

VARTULI ET AL.

Examiner

C. Melissa Koslow

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 25 April 2005.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-24 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-24 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date 4/25/05.
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____.

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This action is in response to applicants' amendment of 25 April 2005. The amendment to the specification has overcome the objection to the disclosure. The amendments to the claims have overcome the 35 USC 112 rejections and the art rejections over WO 01/08453, WO 01/08452, and US patents 6,669,866; 4,807,241; 6,596,195; 6,246,744; 6,278,832 and 6,552,487 and the obviousness-type double patenting rejection over U.S. patent 6,596,195 and the obviousness-type double patenting rejection over claims 16-18. The declarations filed on 25 April 2005 under 37 CFR 1.131 is sufficient to overcome the 35 USC 102(e) rejection over U.S. patent 6,793,848. Applicant's arguments with respect to the remaining rejections have been fully considered but they are not persuasive.

Claims 16-18 are rejected under 35 U.S.C. 112, first paragraph, as containing subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventors, at the time the application was filed, had possession of the claimed invention.

Applicants have amended claim 16 so it states that the annealing step makes the sintered garnet scintillator translucent or transparent. This is nowhere taught in the original disclosure. Paragraph [0071] teaches the sintered garnet scintillator which is to be annealed is transparent or translucent. It is noted that this is the only teaching in the original disclosure that the garnet scintillator is transparent or translucent.

Claims 1-3, 7-9, 11-13, 16 and 19 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

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Claims 1-3, 7-9, 11-13 and 16 are indefinite since they contradict each other. Claims 1-3, 7-9 and 11-13 teach the sintered garnet scintillator is transparent or translucent before annealing and claim 16 states it is the annealing step that makes the sintered garnet scintillator transparent or translucent. This discrepancy needs to be corrected. Claim 19 is indefinite as to its meaning. The phrase "sintered, transparent or translucent ceramic" can be interpreted to mean the scintillator is a sintered ceramic, a transparent ceramic or a translucent ceramic or it can mean a sintered transparent ceramic or a sintered translucent ceramic. If a claim is subject to more than one interpretation, and one of these interpretations would render it unpatentable over the prior art, the proper course is to reject under 112 second and over the prior art. *Ex parte Ionescu* 222 USPQ 537 (PO BdPatApp 1984).

The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.

Claims 1-11 and 13 are rejected under 35 U.S.C. 102(e) as being anticipated by U.S. patent 6,630,077 in view of U.S. 5,057,692.

The applied reference has a common assignee with the instant application. Based upon the earlier effective U.S. filing date of the reference, it constitutes prior art under 35 U.S.C. 102(e). This rejection under 35 U.S.C. 102(e) might be overcome either by a showing under 37 CFR 1.132 that any invention disclosed but not claimed in the reference was derived from the inventor of this application and is thus not the invention "by another," or by an appropriate showing under 37 CFR 1.131.

U.S. patent 6,630,077 teaches sintered scintillator ceramics having formulas that falls within that of claims 3 and 13 (col. 4, lines 50-66), claims 1 and 13 (col. 5, lines 5-8), claims 1,

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3, 5-7 and 13 (col. 5, lines 11-15), claims 3, 8 and 13 (col. 5, lines 16-25), claims 3, 9, 10 and 13 (col. 5, lines 26-31) and claims 3, 11 and 13 (col. 34-36). Table 1 teaches $(\text{Lu}_{0.97}\text{Ce}_{0.03})_3\text{Al}_5\text{O}_{12}$, which falls within the formulas of claims 2-4 and 13. Column 1, lines 28-30; column 5, lines 24-25, column 8, lines 24-44 and column 9, lines 31-32 in U. S. patent 5,057,592 teach scintillators are transparent solid bodies by definition. Thus, the sintered scintillator ceramic in U.S. patent 6,630,077 must inherently be transparent. U.S. patent 6,630,077 teaches the claimed composition.

Claims 1-7, 9-11, 13 and 14 are rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claims 1-10, 24-29, 32 and 33 of U.S. Patent No. 6,630,077 in view of U. S. patent 5,057,592. Although the conflicting claims are not identical, they are not patentably distinct from each other because the formulas of the sintered scintillator ceramic claimed in the patent have variables that overlap or fall within those claimed in this application. Column 1, lines 28-30; column 5, lines 24-25, column 8, lines 24-44 and column 9, lines 31-32 in U. S. patent 5,057,592 teach scintillators are transparent solid bodies by definition. Thus, the sintered scintillator ceramic in U.S. patent 6,278,832 must inherently be transparent. U.S. patent 6,630,077 suggests the claimed composition.

Claims 1-15 and 19-24 are rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claims 1, 19-27, 37, 54 and 72 of U.S. Patent No. 6,793,848 in view of U. S. patent 5,057,592. Although the conflicting claims are not identical, they are not patentably distinct from each other because compositions of claims 17-27 are those of claims 1-12 and the compositions of claims 19 suggest that of claims 13-15 since the x, y, a and z variables of the patent overlap those of claims 13-15 of this application. The claims

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of the patent teach the composition of claim 19 are annealed by the process of claim 1 produces the scintillator of claim 54 and detector element for an X-ray CT scanner comprising the scintillator of claim 54. The compositions of claims 19, 54 and 72 suggest that of claims 19-24 since the x, y, a and z variables of the patent overlap those of claims 19-24 of this application. Product claims with numerical ranges which overlap prior art ranges were held to have been obvious under 35 USC 103. *In re Wertheim* 191 USPQ 90 (CCPA 1976); *In re Malagari* 182 USPQ 549 (CCPA 1974); *In re Fields* 134 USPQ 242 (CCPA 1962); *In re Nehrenberg* 126 USPQ 383 (CCPA 1960). Column 1, lines 28-30; column 5, lines 24-25, column 8, lines 24-44 and column 9, lines 31-32 in U. S. patent 5,057,592 teach scintillators are transparent solid bodies by definition. Thus, the sintered scintillator ceramic in U.S. patent 6,793,848 must inherently be transparent. U.S. patent 6,793,848 suggests the claimed composition.

The amendment to the claims did not overcome these rejections since U. S. patent 5,057,592 teach scintillators are transparent solid bodies by definition.

Claims 19-24 are rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claims 1, 19-27, 37, 54 and 72 of U.S. Patent No. 6,793,848. Although the conflicting claims are not identical, they are not patentably distinct from each other because the compositions of claims 19, 54 and 72 suggest that of claims 19-24 since the x, y, a and z variables of the patent overlap those of claims 19-24 of this application. Product claims with numerical ranges which overlap prior art ranges were held to have been obvious under 35 USC 103. *In re Wertheim* 191 USPQ 90 (CCPA 1976); *In re Malagari* 182 USPQ 549 (CCPA 1974); *In re Fields* 134 USPQ 242 (CCPA 1962); *In re Nehrenberg* 126 USPQ 383 (CCPA 1960). The claims of the patent teach the composition of claim 19 are

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annealed by the process of claim 1 produces the scintillator of claim 54 and detector element for an X-ray CT scanner comprising the scintillator of claim 54.

The amendment to claim 19 did not overcome this aspect of the rejection since amended claim 19 reads on a sintered ceramic scintillator, that need not be transparent or translucent.

Claims 1-15 are provisionally rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claim 1 of copending Application No. 10625,440. Although the conflicting claims are not identical, they are not patentably distinct from each other because the formula of the transparent sintered scintillator claimed in the parent encompasses and overlaps that of claims 1-5 in this application.

This is a provisional obviousness-type double patenting rejection because the conflicting claims have not in fact been patented.

Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the date of this final action.

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Any inquiry concerning this communication or earlier communications from the examiner should be directed to Melissa Koslow whose telephone number is (571) 272-1371. The examiner can normally be reached on Monday-Friday from 8:00 AM to 3:30 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Jerry Lorengo, can be reached at (571) 272-1233.

The fax number for all official communications is (703) 872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

cmk
June 3, 2005


C. Melissa Koslow
Primary Examiner
Tech. Center 1700